

SM 18th 3120 B
INDUCTIVELY COUPLE PLASMA (ICP) METHOD

Facility Name: _____ VELAP ID _____

Assessor Name: _____ Analyst Name: _____ Inspection Date _____

Relevant Aspect of Standards	Method Reference	Y	N	N/A	Comments
Records Examined: SOP Number/ Revision/ Date _____ Analyst: _____					
Sample ID: _____ Date of Sample Preparation: _____ Date of Analysis: _____					
Before preparing mixed standards, was each stock solution analyzed separately to determine possible spectral interference or the presence of impurities? (Was this documentation available for purchased premixed standards)	3 e				
Were the calibration standards initially verified using the quality control standard (2 nd source) and monitored weekly for stability?	3 e				
Were daily or weekly records kept of the Cu and Mn intensities (and/or the intensities of critical element lines)?	4 b				
Was the instrument rinsed between samples and standards at least 60 seconds to prevent carryover?	4 c				
After calibration, before sample analysis, and every ten samples, were check standards determined to be within $\pm 5\%$ (or within control limits, if tighter) of expected values?	4 c 4 e				
Was an instrument quality control sample (2 nd source) analyzed to be within $\pm 5\%$ (or within control limits, if tighter) of expected value with each run?	4 e				
Was a method quality control (2 nd source) subjected to the steps of sample preparation analyzed to be within $\pm 5\%$ (or within control limits, if tighter) of expected value with each run?	4 f				
Was a method blank and a calibration blank analyzed with each sample run?	4 d				
Were samples that were beyond the linear calibration range diluted and reanalyzed?	4 d				

Notes/Comments:

SM 18th Ed 3120 B
INDUCTIVELY COUPLE PLASMA (ICP) METHOD

Relevant Aspect of Standards	Method Reference	Y	N	N/A	Comments
When new matrices were analyzed, were the matrices determined to have neither positive nor negative matrix interferences by serial dilution (element > 1mg/L) or post-digestion (element < 1mg/L) addition?	4 g				
Was matrix interference testing from serial dilutions demonstrated to have recoveries of $\pm 5\%$ of the original sample, and did matrix interference testing by post-digestion addition have recoveries between 95 and 105% or within ± 2 standard deviations around the mean?	4 g				
Were sample results blank corrected from adjacent calibration blanks?	5 a				
Were spectral interferences corrected each time samples were analyzed unless conditions could be confirmed to be the same from day-to-day?	5 c				
Were sample containers and filters acid rinsed prior to use?	3010 B 1				
Were samples acidified immediately after sampling to a pH < 2 with nitric acid? (Samples for dissolved metals are excepted: see below.)	3010 B 2				
Were samples for dissolved metals filtered prior to preserving to a pH < 2?	3010 B 2				
Were samples stored at approximately 4°C? (method preferred)	3010 B 2				
Were acid-preserved samples analyzed within 5 weeks for mercury? (Potassium permanganate preserved samples can be held longer.)	3010 B 2				
Were samples analyzed within 6 months for other metals?	3010 B 2				
Was a blank and a minimum of two calibration standards used in initial calibrations?	3020				
Were mid-point check standards analyzed before sample analysis, periodically during a run, and at the end of each run to be between 95 and 105% of expected values?	3020				

Notes/Comments:

SM 18th Ed 3120 B
INDUCTIVELY COUPLE PLASMA (ICP) METHOD

Relevant Aspect of Standards	Method Reference	Y	N	N/A	Comments
Were method blanks exposed to all elements of sample preparation and measured to be less than MDL?	3020				
Was an LFB included with each batch of 20 or fewer samples and determined to be within control limits?	3020				
Was a duplicate sample analyzed with each set of samples?	3020				
Were LFMs analyzed with each set of samples and evaluated against control limits?	3020				

Notes/Comments: